

ILLEGIB

Approved For Release 2001/03/30 : CIA-RDP78T05439A000200300054-1

Next 2 Page(s) In Document Exempt

Approved For Release 2001/03/30 : CIA-RDP78T05439A000200300054-1

PUNCHED
VERIFIED

~~SECRET~~
NO FOREIGN DISSEM

NPIC/R-1173/63
March 1963

S-8702

PHOTOGRAPHIC INTERPRETATION REPORT

CRUISE-MISSILE LAUNCH SITE NEAR SANTA CRUZ DEL NORTE, CUBA

Declassification review by NIMA/DOD



ARMY



NAVY

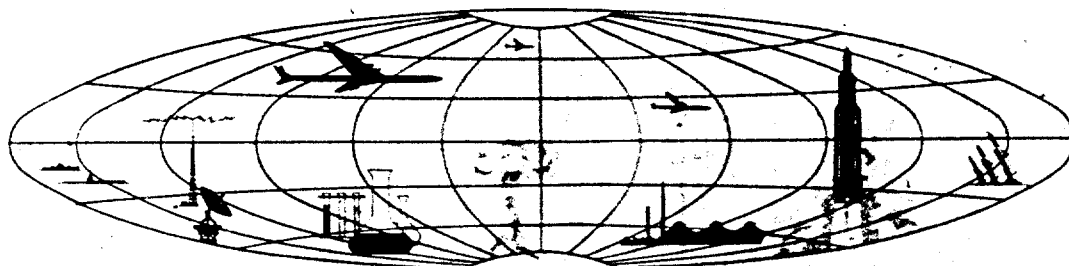


AIR FORCE



CIA

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



~~SECRET~~
NO FOREIGN DISSEM

GROUP 1
Excluded from automatic
downgrading and declassification

CRUISE-MISSILE LAUNCH SITE NEAR SANTA CRUZ DEL NORTE, CUBA

An operational cruise-missile launch site similar to the one near Banes, Cuba is located at 23-09-00N 81-56-20W (UTM 17QMR039603 on AMS Series E 723, Sheet 3885 III), 1.1 nautical miles (nm) southwest of Santa Cruz del Norte and .7 nm south of the coast (Figure 1). The site--oriented north toward the ocean--is situated on a hill which has a mean elevation of 225 feet. Cruise-missile equipment was first observed at this site on high-altitude photography of [REDACTED]

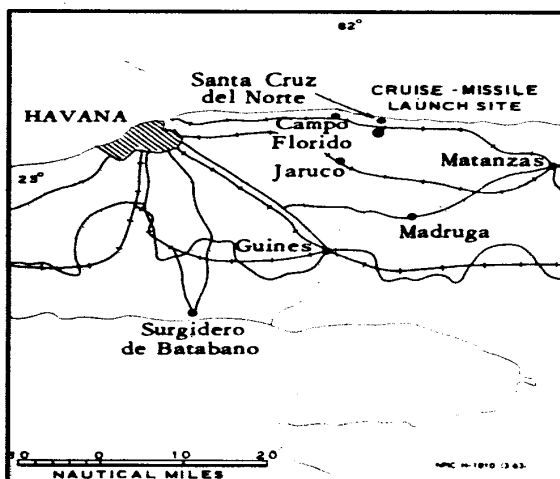


FIGURE 1. LOCATION OF CRUISE-MISSILE LAUNCH SITE NEAR SANTA CRUZ DEL NORTE, CUBA.

The complement of operational equipment is basically the same as that at the Banes site. Specifically, the site near Santa Cruz del Norte contains two revetted launchers with their respective probable control revetments, eight

camouflaged probable missile transporters, two SHEET BEND radars with their associated SQUARE HEAD antennas, an unidentified probable radar mounted on a tall mast, missile crates, numerous buildings, a tent camp, a motor pool, and two open storage areas.

A cruise missile positioned on a probable dolly was identified at this site on high-altitude photography of [REDACTED]. Cruise missiles have also been identified at Banes and the cruise-missile launch site near Campo Florido on high-altitude photography. In dimensions and configuration, these missiles are compatible with the modified KENNEL air-to-surface missile (ASM) observed in a parade in Havana on [REDACTED] (Figure 2). The cruise missiles identified in Cuba on high-altitude photography may be modified KENNEL ASMs which have been adapted to a surface-to-surface capability. The KENNEL measures approximately [REDACTED] in length and has a wing span of 15 feet. The fuselage is tapered and measures approximately [REDACTED] in diameter.

The cruise-missile launch site near Santa Cruz del Norte is depicted in Figures 3 and 4. A textual description of significant features of the site follows (item numbers are keyed to Figure 3).

Two launch revetments (items 1 and 2). Each revetment measures approximately [REDACTED] and is occupied by a canvas-covered mobile launcher oriented on an azimuth of 355-360 degrees. The launchers (Figure 5) are approximately [REDACTED] long and have outriggers at about the midpoint on each side. [REDACTED]

25X1D

25X1D

25X1D
25X1D

25X1D
25X1D

25X1D

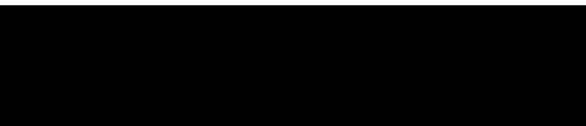
25X1D

25X1D
25X1B
25X1B

SECRET
NO FOREIGN DISSEM

NPIC/R-1173/63

25X1B
25X1D
25X1B



Alignment chocks for mating the launcher to a transporter are located to the rear of the launcher. The launch revetments are separated center to center by a distance of 275 feet.

Two probable control revetments (items 3 and 4). These revetments are canvas covered and each contains a probable control van. One revetment (item 3) measures 60 by 15 feet. It is located 225 feet east-southeast of the east launcher and is connected by cable to the east launch revetment. The second revetment (item 4) measures approximately 50 by 15 feet. It

is located 215 feet southwest of the west launcher and is connected by cable to the west launch revetment.

Two SHEET BEND radars (items 5 and 6). One SHEET BEND radar (item 5) is canvas covered. It is connected by cable to the two launch revetments (items 1 and 2), the two probable control revetments (items 3 and 4), and three other revetments (items 8, 10, and 12). The second SHEET BEND radar (item 6) is also canvas covered. It is located north of a probable generator revetment (item 9). This type of radar (Figure 6) has been identified at three other cruise-missile sites in Cuba and at a radar school near Mariel, Cuba. It is mounted near the rear of a box-body trailer which measures approximately [REDACTED]

25X1D

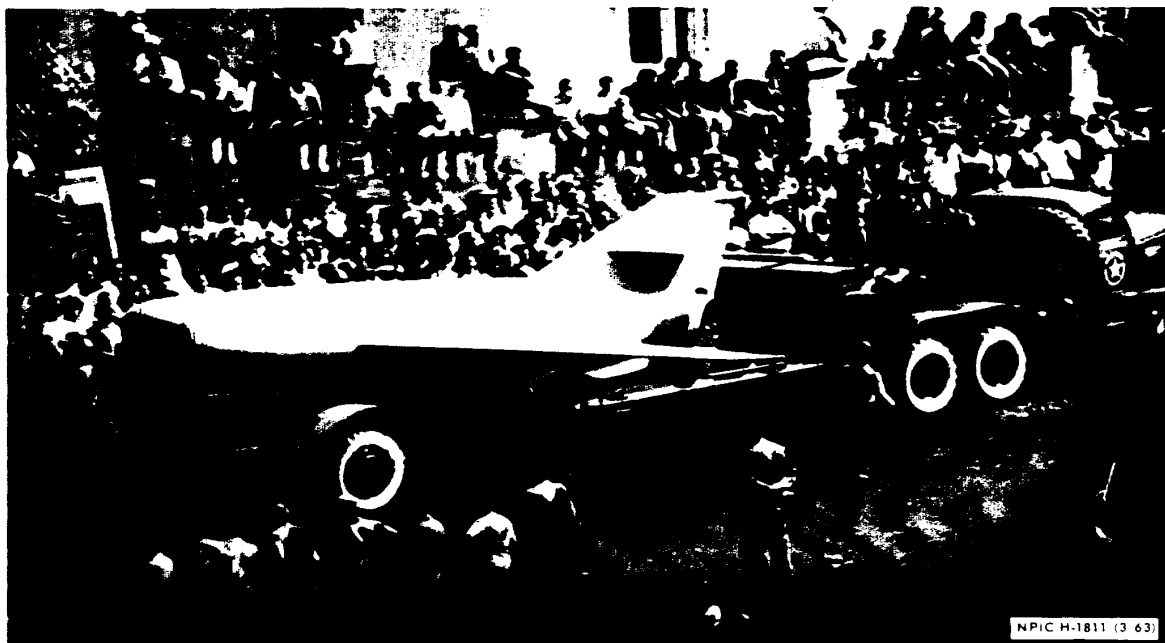


FIGURE 2. MODIFIED KENNEL MISSILE IN HAVANA [REDACTED]

25X1D

- 2 -

SECRET
NO FOREIGN DISSEM

SECRET
NO FOREIGN DISSEM

NPIC/R-1173/63

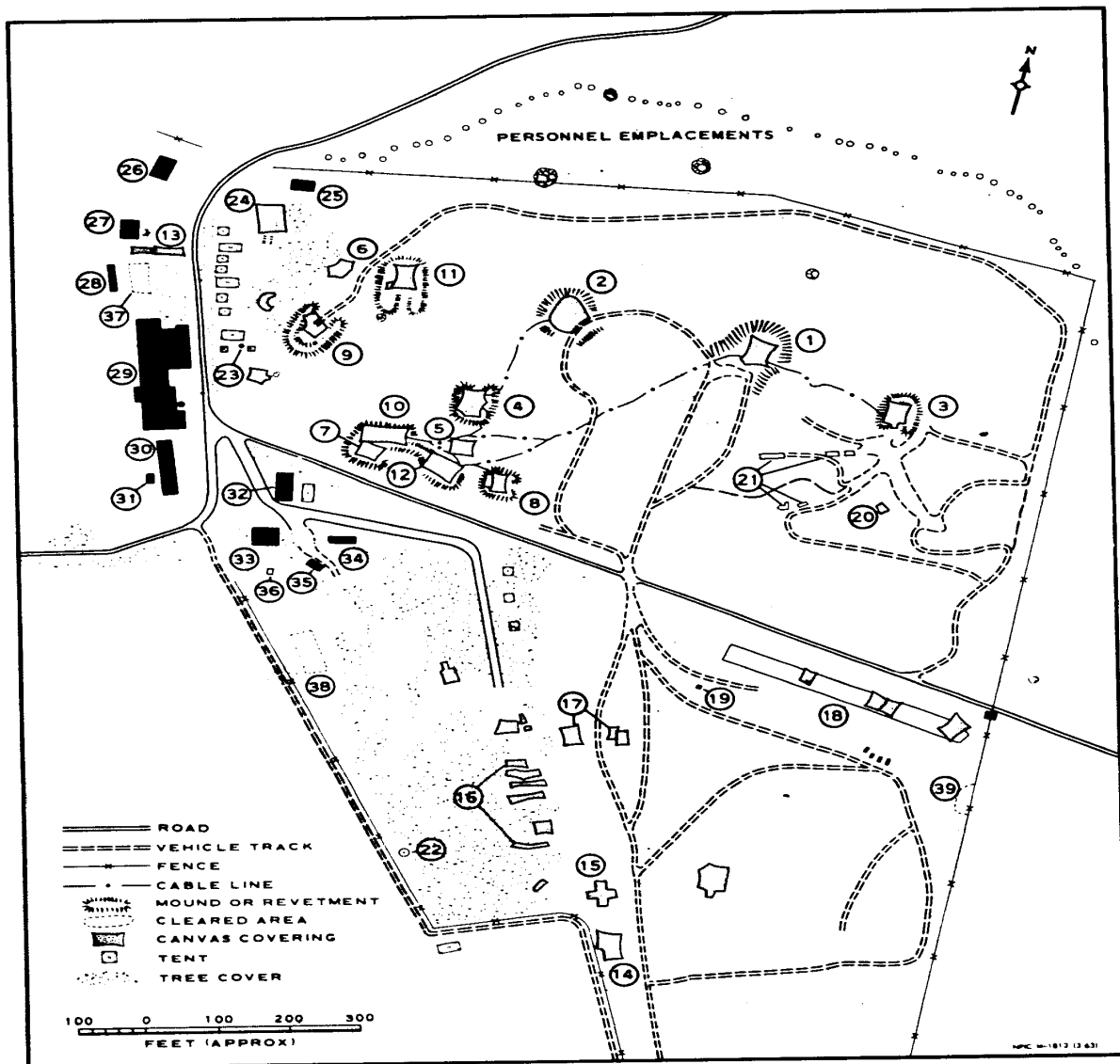


FIGURE 3. LAYOUT OF FACILITIES AT LAUNCH SITE.

- 3 -

SECRET
NO FOREIGN DISSEM

SECRET
NO FOREIGN DISSEM

NPIC, R-1173/63

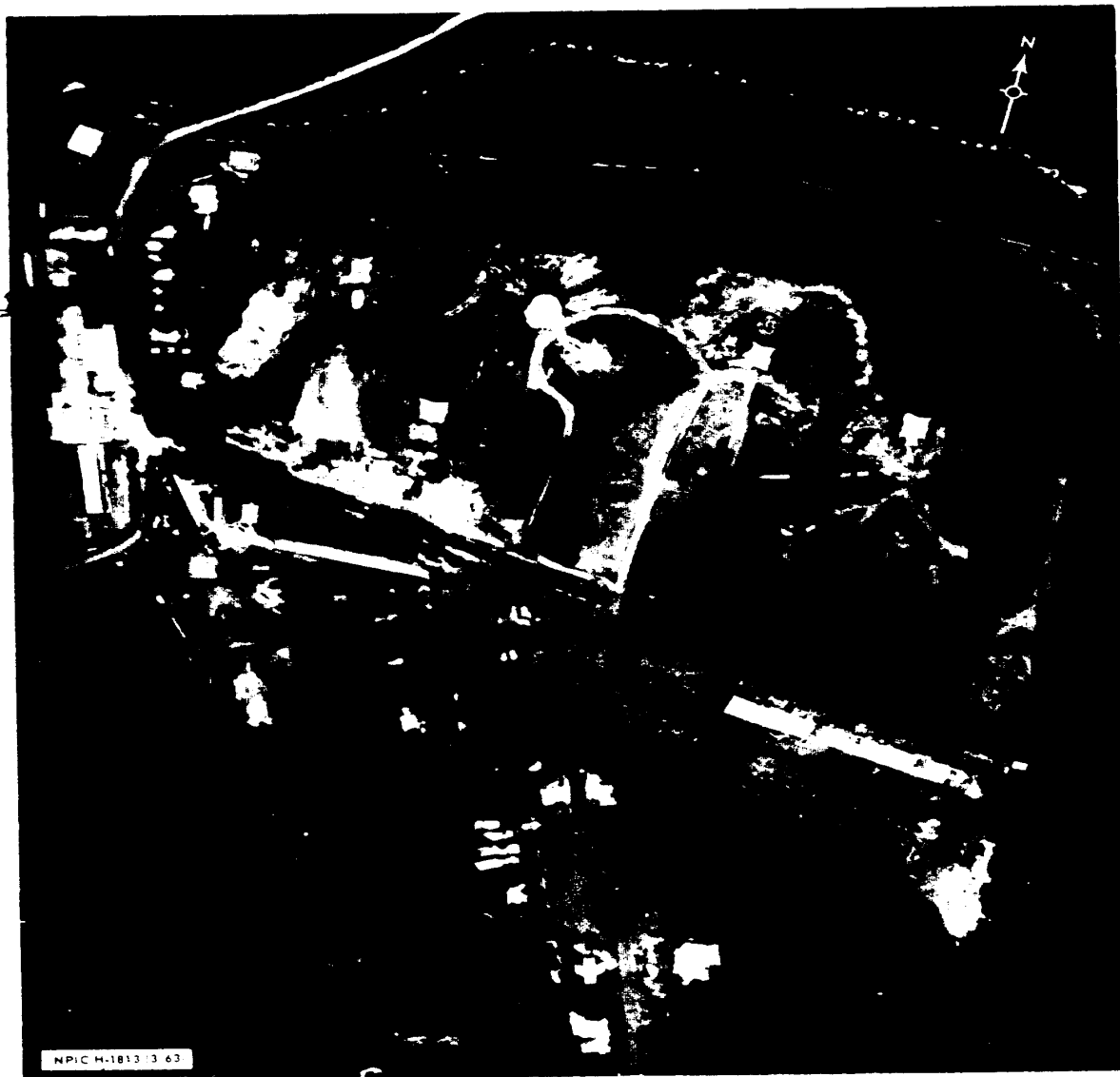


FIGURE 4. CRUISE-MISSILE LAUNCH SITE

25X1D

- 4 -

SECRET
NO FOREIGN DISSEM

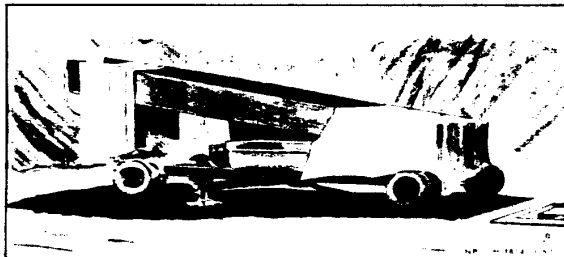


FIGURE 5. SKETCH OF LAUNCHER.

The reflector--a truncated paraboloid measuring approximately [REDACTED]--is mounted on a pedestal and is hinged so that it can be angled downward to a stowed or transport position. Power is supplied from below by means of a feed arm. Mounted on the front end of the trailer is a SQUARE HEAD IFF interrogator which measures approximately [REDACTED] and appears to telescope.

Probable radar revetment (item 7). This revetment is canvas covered and measures approximately 45 by 15 feet. It is occupied by a tall unidentified probable radar. The revetment is located on the south edge of another revetment (item 10) containing an unidentified piece of equipment.

Two probable generator revetments (items 8 and 9). One revetment (item 8) is canvas covered and measures approximately 30 by 10 feet. It is located southeast of one SHEET BEND radar (item 5). This revetment is occupied by a probable power generator. The second revetment (item 9) is partially canvas covered and measures approximately 60 by 15 feet. It is located southwest of a probable missile-hold revetment (item 11), and is occupied by a probable power generator similar to the one at the first probable generator revetment (item 8). This generator is used in support of the second SHEET BEND radar (item 6).

Possible generator revetment (item 10).

This revetment is canvas covered and measures approximately 60 by 15 feet. It is connected by cable to the two launch revetments (items 1 and 2), one of the two probable control revetments (item 4) and probably the other (item 3), one of the SHEET BEND radars (item 5), one of the probable generator revetments (item 8) and an unidentified revetment (item 12). The possible generator revetment is occupied by an unidentified piece of equipment measuring approximately [REDACTED]. The cable leads to this revetment and its location within the site is similar to corresponding features of the possible power generator at the cruise-missile site near Banas.

Probable missile-hold revetment (item 11).

This revetment is canvas covered and measures approximately 80 by 15 feet. It is located 225 feet west of the west launch revetment (item 2). The revetment is probably occupied and

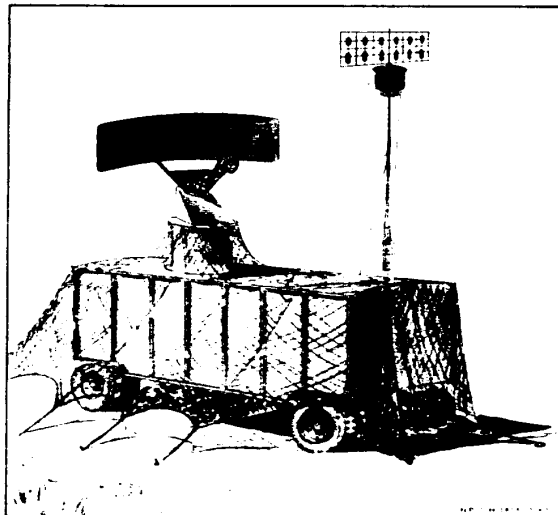


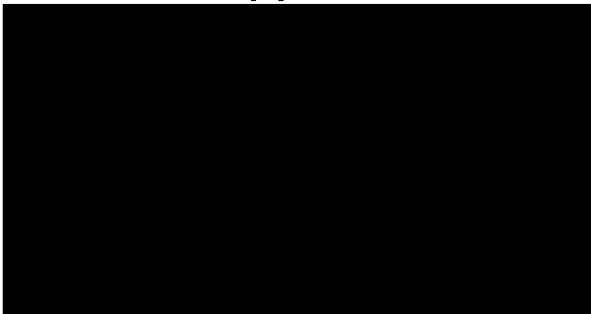
FIGURE 6. SKETCH OF SHEET BEND RADAR WITH ASSOCIATED SQUARE HEAD ANTENNA.

SECRET
NO FOREIGN DISSEM

NPIC/R-1173/63

may function as a hold position for missiles. However, the exact function of the revetted equipment is undetermined.

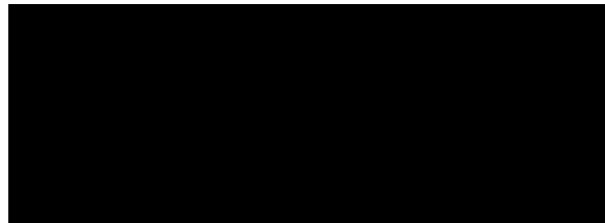
Unidentified revetment (item 12). This revetment is canvas covered and measures approximately 40 by 10 feet. It is located just south of one SHEET BEND radar (item 5). It is connected by cable to the two launch revetments (items 1 and 2), the two probable control revetments (items 3 and 4), one probable generator revetment (item 8), and the possible generator revetment (item 10). The revetment is probably occupied; however, the exact function of the revetted equipment is undetermined.



Open storage area (item 14). On earlier coverage, this open storage area contained six canvas-covered missile shipping crates and unidentified supplies. Two more shipping crates were added in [REDACTED]. There are ten shipping crates in all at the site.

Tent (item 15). This cross-shaped tent, 45 by 40 feet, probably functions as a checkout facility for missiles. A cruise missile on a probable dolly was identified near this tent in [REDACTED].

Probable missile transporters (item 16). Eight probable missile transporters are located in a heavily wooded area under canvas stretched between trees. An uncovered transporter of this type was displayed in the [REDACTED] Havana parade (Figure 2). With this exception,



the transporters have all been canvas covered on available photography. They measure [REDACTED] overall, with the canvas-covered portion--the trailer--measuring [REDACTED]. The trailer is a low-boy type. The missile rides on a double-rail carriage hinged to the trailer just off the trailing edges of the missile wings. The rails mate with the two corresponding rails on the launcher. The tractor is a ZIL-157V.

Unidentified objects (item 17). The two unidentified objects are canvas covered.

Motor pool (item 18). The motor pool contains two bulldozers, two generator trailers, and four canvas-covered pieces of equipment.

Guard post (item 19). The guard post--a single-story structure--measures 5 by 5 feet and has a traffic control gate.

Two AT-S (item 20). These tracked prime movers are probably used to pull the trailer vans.

Unidentified canvas-covered equipment (item 21).

Microwave tower (item 22). The orientation of the twin dishes is undetermined.

Communications facility (item 23). The facility consists of one stick mast with an associated canvas-covered van.

Unidentified revetment (item 24). This revetment is canvas covered and measures approximately 40 by 10 feet. It is located west-northwest of the west launch revetment (item 2). The revetment is probably occupied; however, the exact function of the revetted equipment is undetermined.

25X1B

25X1D

25X1D

25X1D

25X1B

25X1D

25X1D

25X1D

SECRET
NO FOREIGN DISSEM

NPIC/R-1173/63

Buildings (items 25-36). With the exception of one building which is still under construction (item 36), the following buildings predate the missile installation but appear to

Item	Roof Configuration	Dimensions (ft)
25	Gable	35 x 25
26	Flat	40 x 30
27	Gable	35 x 25
28	Gable	55 x 10
29	Gable	200 x 70
30	Gable	100 x 20
31	Gable	15 x 10
32	Gable	50 x 25
33	Gable	40 x 35
34	Flat	40 x 20
35	Flat	20 x 10
36	U C	20 x 10

be integral parts of its support facilities. The buildings--all single story--have either flat or gabled roofs. One (item 29) has an irregular configuration.

Two volleyball courts (items 37 and 38).

Open storage area (item 39). This open storage area contains at least 40 probable 55-gallon drums.

Other equipment observed at the site at various times includes five large tents measuring approximately 30 by 20 feet each, 15 smaller tents ranging in size from [REDACTED]

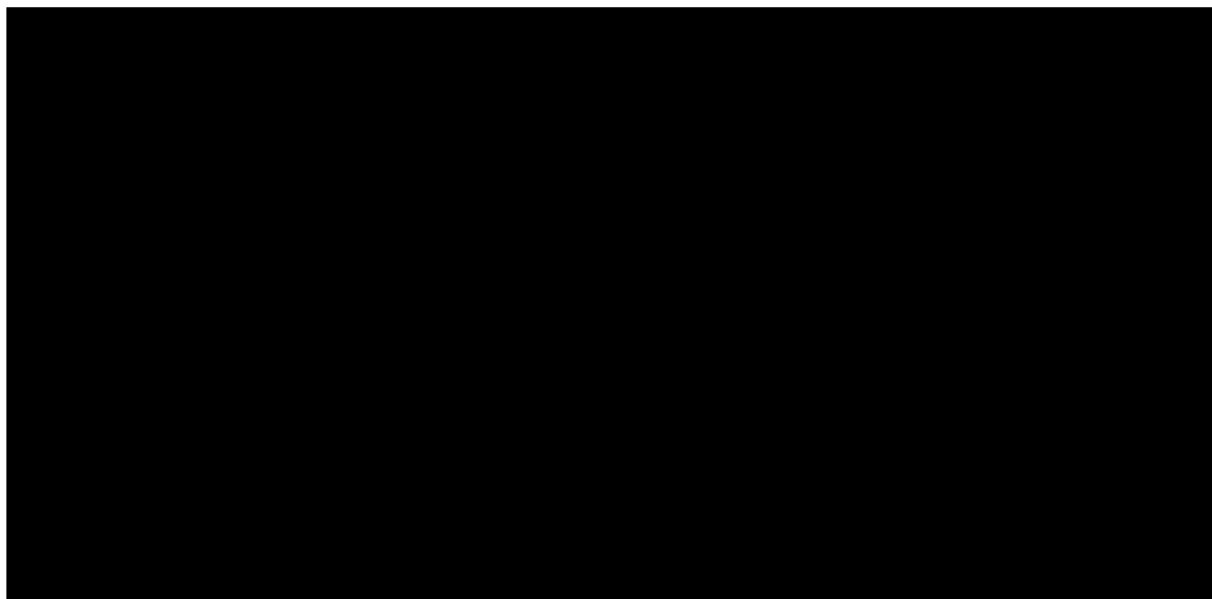
[REDACTED] two trucks, one tank truck, one mobile crane, and more than 40 personnel emplacements.

25X1D

25X1D

REFERENCES

PHOTOGRAPHY



25X1D

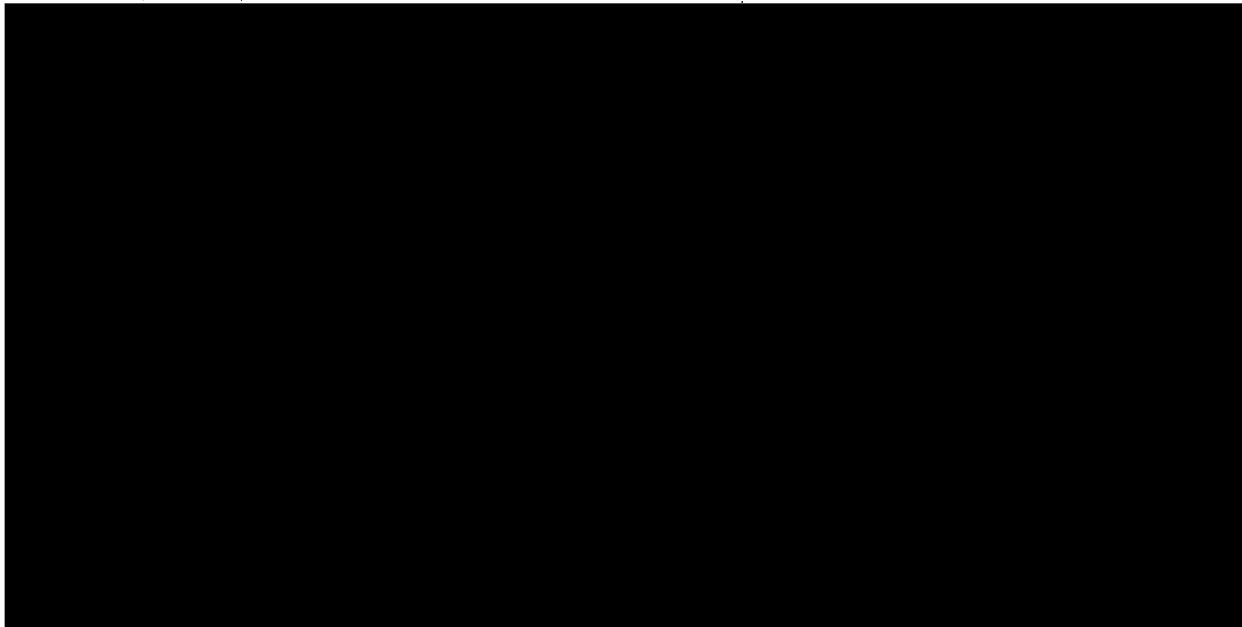
SECRET
NO FOREIGN DISSEM

SECRET
NO FOREIGN DISSEM

NPIC/R-1173/63

REFERENCES (Continued)

PHOTOGRAPHY (Continued)



25X1D

Ground:

Agency
CIA

Accession Number
884290

Date
2 Jan 63

Classification
SECRET No Foreign Dissem

MAPS OR CHARTS

AMS, Series E 723, Sheet 3665 III, Santa Cruz del Norte, 2d ed, Sep 62, scale 1:50,000



25X1A
25X1C

REQUIREMENT

NPIC. PC 173-2

NPIC PROJECT

JN-226 62

- 8 -

SECRET
NO FOREIGN DISSEM